

Diagn.—Major; colore flavo magis olivaceo; ventre toto long. tota 6·5, alæ 3·8, caudæ 2·8.

Hab. Chili (*Gay*); Southern Patagonia (*Darwin* and *Cunningham*).

We have not been able to refer to Lafresnaye and D'Orbigny's *Fringilla gayi*, ex Bolivia, *stirps major* (*Mag. de Zool.* 1837, p. 75); so we cannot say positively that it belongs to this species.

. We hope shortly to have the opportunity of describing the eggs sent home by Dr. Cunningham.—ED.

XXVI.—*Notes on Birds of the Territory of the Trans-Vaal Republic.* By THOMAS AYRES*.

1. (L. 6†.) GYPS FULVUS (Gmel.). Fulvous Griffon-Vulture.

I have a small collection from the Limpopo and the road to that river. I was on the whole much disappointed with the birds of that part of the country, there not being anything like the variety I expected to find; the *Raptores* are very badly represented, except by the Vultures, of which most kinds are numerous, excepting the Pileated and Egyptian,—the Griffon being in immense numbers; I can only compare them to a lot of barn-door fowls. They accompany the hunters, and when game is shot wait patiently on the surrounding bushes and trees to eat up whatever offal or meat is left for them, pouncing upon it in scores before one is twenty yards away, and have much more intelligence than I gave them credit for: they know quite well where a camp is about to be broken up, and immediately collect, narrowly watching proceedings, and gradually approaching closer and closer as the oxen are being inspanned; and the waggons are no sooner on the move than down they come, squabbling for the bits of bone lying about, or anything else that may be left that suits their fancy. The lions kill game in the night; early in the morning the Vultures proceed to the scene of operation, immediately followed by the

[* Kindly communicated by Mr. John Henry Gurney.—ED.]

† The numbers preceded by "L." in brackets are those by which some of the species are distinguished in Mr. Layard's 'Birds of South Africa.'

jackals, wolves, and Caffres, who watch the Vultures' flight, and are there almost as soon as themselves. I may notice that the Caffres are no more afraid of a lion than we are of a dog, and coolly drive him away from his food*, frequently with nothing in their hand but a small stick. The Vultures were breeding all along the banks of the river, placing their nests on the tops of the highest trees so as to be quite inaccessible; at least I could find neither white nor black who would risk his neck at the height perhaps of a hundred or a hundred and fifty feet to get me the eggs, though I offered high rewards.

[The South-African race of this Vulture, perhaps, differs sufficiently from the nearly allied Northern race to be considered specifically distinct, in which case it should bear the name of *Gyps kolbii* (Daud.).—J. H. G.]

2. (L. 5.) *VULTUR AURICULARIS*, Daud. Sociable Vulture.

These birds place their nests on the upper branches of rather low thorn trees: the nest is composed of coarse sticks on the outer layers, and finer towards the inner; it is lined with more or less wool and coarse matted lumps of dirty hair, much of it probably vomited by the bird after its meals; the structure is about four feet in diameter, and slightly concave. I examined two nests in the month of July, each containing one egg, which in both cases was much incubated: these nests were situated on low trees on the banks of a river in the Free State.

3. (L. 4.) *VULTUR OCCIPITALIS*, Burch. Occipital Vulture.

The nest of this Vulture almost exactly resembles that of the last, and is placed in similar situations; the birds also breed at the same time, and lay but one egg.

The egg sent was much incubated, and was taken in the month of July.

[The egg here mentioned was forwarded by Mr. Ayres to Mr. Tristram, who informs me that "it is white with a few faint brown cloudings, is thinner in texture than most other Vultures', and decidedly more elongated, resembling rather a Condor's in its shape. Greater axis 3·9375 in., lesser axis 2·6875 in."—J. H. G.]

* Cf. Moffat's 'Missionary Labours,' ed. 1842, p. 141.

4. (L. 38.) *ELANUS CÆRULEUS* (Desf.). Black-shouldered Kite.

This species appears to be equally distributed throughout Natal and Trans-Vaal.

5. (L. 28.) *CHICQUERA RUFICOLLIS* (Swains.). African Red-necked Falcon.

The first specimen which I obtained of this handsome bird was shot by Dr. Portman whilst attempting to carry away a tame Parrot which the Doctor had, and at that moment was not ten feet outside the veranda of the house.

A pair of these Falcons may occasionally be seen flying about the willow trees in Dorp; but they are by no means plentiful. The sexes are very similar in plumage, but the male is rather the smaller. The irides are dark brown, the naked skin round the eye yellow, the bill blue horn-colour, but yellow at the base, the cere, tarsi, and feet yellow.

6. (L. 33.) *TINNUNCULUS RUPICOLoidES* (A. Smith). Greater South-African Kestrel.

These Kestrels are tolerably common in the open country surrounding Potchefstroom, and in habits and appearance they much resemble our Natal *T. rupicolus*, they are generally in pairs, but sometimes three or four together; they feed upon rats, mice, lizards, and various insects, especially locusts.

Irises tawny-yellow, bill bluish horn-colour, but black at the tip, cere yellow, tarsi and feet dull yellow.

7. (L. 41.) *ACCIPITER POLYZONOIDES*, A. Smith. Many-banded Sparrow Hawk.

Adult male:—Iris orange, bill black, but bluish at the base, cere and gape yellow, tarsi and feet yellow.

Immature female:—Iris yellow.

The colours of the eyes, tarsi, feet, bill, and cere appear to vary much in different individuals. Scarcely two are precisely similar.

8. (L. 44.) *MELIERAX GABAR* (Daud.). Gabar Hawk.

Inhabits the bush.

Adult female:—Iris dark reddish-yellow; bill black, base and

cere red ; tarsi and feet bright brick-red. Male and female immature. Iris yellow.

[As the dimensions of this species are said to vary in different parts of Africa (Ibis, 1861, p. 74, and 1868, p. 145), I annex the principal measurements of a pair obtained by Mr. Ayres in the Trans-Vaal:—

	Wing from carpal joint.	Tail.	Tarsus.	Middle toe and claw.
	in.	in.	in.	in.
♂	7·5	6·25	1·75	1·5
♀	7·75	6·5	2	1·75

The smaller Northern race, *M. niloticus* (Sundevall, (Efvers. K. Vet.-Ak. Förhandl. 1850, p. 132), may, I think, be accepted as specifically distinct.—J. H. G.]

9. (L. 46.) *MELIERAX MUSICUS* (Daud.). Chanting Hawk.

Obtained in the bush-country on the banks of the Limpopo river, where it is the most numerous species of any of the diurnal birds of prey, except the Vultures.

Immature male:—Iris yellow, bill black at the tip, base and cere yellow, tarsi and feet red.

10. (L. 59.) *BUBO MACULOSUS* (Vieill.). Spotted Eagle-Owl.

The only nest I ever found of this fine Owl was placed in a nook on the face of a precipitous rock, and contained one young bird not long hatched, which was of a creamy, tawny-white colour, and one egg cracked and addled, the shell of which I send ; this I took in the month of October whilst on an exploring expedition to some very curious limestone-caves of great extent, some of the galleries of which are exceedingly beautiful by torchlight, stalactites of all imaginable shapes hanging in every direction.

11. (L. 68.) *CAPRIMULGUS RUFIGENA*, A. Smith. Rufous-cheeked Goatsucker.

One day in October, whilst walking with my gun amongst some rocky ground, the bird which I now send rose close to my feet, and I shot it ; on examining the spot whence it rose I

found an egg which was laid on the bare ground, without the slightest pretence to a nest.

[The bird and egg above mentioned were sent by Mr. Ayres to Mr. Tristram. The bird (a female) agrees with the figure of the male in Sir A. Smith's 'Illustrations of the Zoology of South Africa' (*Aves*, pl. 100), except that it wants the white on the tail which occurs in the male bird. Mr. Tristram informs me that "the egg is of a rich cream-colour, with faint fawn-coloured cloudings all over it."—J. H. G.]

12. (L. 83.) *HIRUNDO SEMIRUFA*, Sundev. Rufous-breasted Swallow.

These Swallows appear in Potchefstroom in September, in the spring of the year, and continue throughout the summer. They appear to be somewhat solitary in habits during their stay, and are decidedly scarce. Their flight is comparatively heavy.

The irides are dusky, bill black, tarsi and feet dusky.

13. *HALCYON DAMARENSIS*, Strickl. Damara Kingfisher.

Obtained in the district of the river Limpopo, but shot in the bush many miles from water.

[The specimen sent agrees with examples from Damara Land of the larger race of *Halcyon chelicuti* (Stanley) described by Strickland (Contr. Orn. 1852, pp. 153, 154) as distinct*.—J. H. G.]

14. (L. 101.) *HALYCON ALBIVENTRIS* (Scop.). Brown-hooded Kingfisher.

Occurs in the district of the river Limpopo, but is scarce.

15. (L. 110.) *CERYLE RUDIS* (Linn.). Black-and-White Kingfisher.

I found a few of these in the same district.

16. (L. 109.) *CERYLE MAXIMA* (Pall.). Great African Kingfisher.

I met with a few of this species in the Mareco district.

17. (L. 169.) *DRYMŒCA FLAVICANS* (Vieill.). Citrin-Drymœca.

This delicate little bird is common about the hedgerows in

* [Cf. *suprà*, pp. 277, 278.—ED.]

Potchefstroom. Ground covered with dense masses of tall weeds is generally chosen by it for its breeding-place. The nest is made of fine strips of green grass very curiously curled and twisted together, attached to weeds some two or three feet from the ground; it is of an oval shape, well closed in, with the exception of a small opening on the upperside, and is lined with fine white down taken from grasses and plants. The eggs, which are from two to four in number, vary much in colour.

[Mr. Layard (B. S. Afr. p. 95) supposes this species to be identical with the *Motacilla subflava* of Gmelin (S. N. i. p. 982); but the latter being founded on a figure in the 'Planches Enluminées' (No. 584, fig. 2) which hardly admits of satisfactory identification, I have preferred using the specific name proposed by Vieillot for the present species, which is well figured and described by Le Vaillant (Ois. d'Afr. pl. 127) under the name of "Le Citrin."—J. H. G.]

18. (L. 157.) *DRYMÆCA LEVAILLANTI*, A. Smith. Le Vaillant's *Drymæca*.

The nest of this species is attached to the upper parts of tall weeds, amongst the leaves; it is composed of very fine wool and spiders' webs mixed with dry grass rather roughly woven together; the inside is lined lightly with the feathery down of some sort of wild flowers. It is oval in shape, with the entrance on the upper side, and has altogether a white, light, and pretty appearance.

The eggs vary much in colour, some being pure white with dark pink spots, others pinkish-white with very fine small spots of rather darker pink; others, again, are pale sky-blue blotched and spotted with pale pinkish-brown.

19. (L. 176.) *CALAMOHERPE RUFESCENS* (Keyserl. & Blas.). Fig-eating Reed-Warbler.

The nest of this species is a very extraordinary structure for so small a bird; it is a mass of seven or eight inches in depth and four or five in diameter, with a small neat cup-shaped cavity at the top, an inch and a quarter across; it is composed principally of white feathers intermixed and bound together with pieces of cotton, wool, and grass; the tips of many of the feathers are

allowed to stick out fancifully, which gives the nest an odd appearance as if expressly ornamented; the inside of the cup is very neatly lined with fine grass and horsehair. All nests are not as large as the one described; but all partake more or less of the same character. They are built generally amongst the fig-tree hedges common in the town of Potchefstroom. When insects are scarce the birds feed readily on the ripe figs, here very abundant in the autumn months. The eggs are generally two or three in number. It seems to me that the birds add to their old nest each season, which will account for the structure being so extremely large.

[This Reed-Warbler is the same as that which I have before mentioned (Ibis, 1865, p. 266, and 1868, p. 157) as a variety of the British species, *C. strepera*, from which it in fact only differs in the comparative length of the first and second primaries—the first being from .1875 to .25 in. shorter than the second, whilst in the English bird it is only about .0625 in. shorter. This difference, though slight, appears to be a constant peculiarity of the South-African race, as I have found on a comparison of specimens from Natal, Trans-Vaal, Damara Land, and Colesberg. —J. H. G.]

20. (L. 215.) *ZOSTEROPS CAPENSIS* (Linn.). Cape Zosterops.

Occasionally seen in small companies, actively hopping and climbing about the hedges and trees during the winter months.

21. (L. 219.) *MOTACILLA CAPENSIS*, Linn. Cape Wagtail.

The nest is coarsely built of rough grass and rather thickly lined with short hair; it is cup-shaped and generally placed in some crevice of a wall, or in a bank, or amongst the crannies of a rock, and frequently within a foot or two of some water. It may also often be found under the eaves of a building, or in a hole in the thatch. The eggs are generally four in number.

22. (L. 240.) *TURDUS OLIVACEUS*, Cuv. Olivaceous Thrush.

These Thrushes are common in Potchefstroom all the year round, but are silent and retiring in their habits, frequenting thickets and dense hedgerows, and occasionally uttering a low short chuck, very similar in sound to that of the Redwing of Europe.

23. (L. 237.) *TURDUS STREPITANS*, A. Smith. Ground-scraper Thrush.

Obtained at the river Limpopo. Iris double-ringed, yellow and red.

24. (L. 248.) *BESSORNIS PHŒNICURUS* (Gmel.). Garden-Chat.

Two eggs only are generally laid by these birds. The nest is placed on the ground, mostly at the foot of some tree amongst the hedges, in a well-sheltered spot, and frequently close to water, and often amongst dead and dry fallen leaves; it is cup-shaped, two inches and a half in diameter in the inside, and is built roughly of dead leaves and broad grasses, lined with horse-hair and long fibres not very neatly woven. The eggs are large for the size of the bird.

25. (L. 319.) *MELÆNORNIS SILENS* (Shaw). Silent Melæ-nornis.

Iris dusky; bill, tarsi, and feet black.

This bird has the light wavering flight of the Flycatchers; it is rather scarce at Potchefstroom, and I have hitherto only found it there during the winter months. It frequents the hedgerows, and when perched on the outer twig of some hedge it much resembles in appearance *Lanius collaris*.

26. (L. 309.) *UROLESTES CISOIDES* (Licht.). Long-tailed Shrike.

Obtained near the river Limpopo. It is also generally distributed throughout the bush-veldt of the Trans-Vaal. It is solitary in its habits.

27. (L. 313.) *PRIONOPS TALACOMA*, A. Smith. Helmeted Shrike.

Found in the neighbourhood of the Limpopo, in flocks or families of from six to ten in number.

Irides and eyelids yellow, tarsi and feet red.

28. (L. 318.) *EUROCEPHALUS ANGITIMENS*, A. Smith. White-breasted Shrike.

Found in companies of from six to ten, in the district of the river Limpopo.

Iris dusky; sexes similar in size and plumage.

29. (L. 321.) *LANIARIUS ATROCOCCINEUS* (Burch.). Carmine-breasted Shrike.

Obtained near the Limpopo.

30. (L. 353.) *DILOPHUS CARUNCULATUS* (Gmel.). Grey Starling.

These birds feed much upon locusts and other insects, swallowing them whole, and, in habits and motions whilst feeding, remind one much of the English Starling. They are only found at Potchefstroom during the winter months, from April to November, when they occur both singly and also in companies varying in number from three up to a hundred or more.

Male:—Iris very light brown, bill pale on the upper and pink on the lower mandible, the bare skin about the eye (which in some examples extends over the occiput) light yellow; wattles about the head and chin black, tarsi and feet pale.

Female:—Iris dark brown, bill pale, tarsi and feet more dusky.

31. (L. 335.) *JUIDA AUSTRALIS* (A. Smith). Burchell's Grackle.

Obtained near the river Limpopo.

32. (L. 367.) *EUPLECTES TAHA* (Linn.). Little Black-and-yellow Weaver-bird.

During the winter these birds are found congregating with *E. sundevalli*, and in equal numbers; but in the summer they are not found with their winter associates, and the greater number of them leave us, though some are occasionally met with in the rushy and reedy vleys, where they probably breed. The males are at this season exceedingly beautiful; I can only compare them to butterflies; they puff out all their feathers and appear like balls of black and yellow floating slowly about over the grass, evidently courting their less gaudy loves hidden hard by among the long rushes.

Iris dusky, tarsi and feet dusky brown, the male has the bill black in summer, but in winter dusky pale, darkest along the ridge.

33. (L. 391.) *ESTRElda BENGALUS* (Linn.). Purple-eared Finch.

In November 1864 I found this pretty species in some

numbers amongst the bush on the banks of the Tugela, in Natal ; and my brother has recently met with it on the Limpopo.

Iris reddish-hazel, bill lilac, blackish at the tip, tarsi and feet pale.

34. (L. 392.) ESTRElda MELBA (Linn.). Crimson-throated Finch.

Obtained near the river Limpopo.

35. (L. 408.) PASSER ARCUATUS (Gmel.). Cape Sparrow.

The nest of this bird is a very rough cumbrous structure placed in a hedgerow or low tree, and much resembles that of the English Sparrow ; it is exceedingly well lined with feathers and other warm material. I found one situated in the base of the nest of a Rook (*Corvus capensis*, Licht.), in a low mimosa-tree ; in the Sparrow's nest were three young birds nearly fledged, and the Rook was sitting upon four eggs in the upper storey.

36. (L. 442.) CRITHAGRA BUTYRACEA (Linn.). Butyraceous Grossbeak.

This species is common at Potchefstroom, breeding amongst the hedgerows, and constructing a cup-shaped nest, rather roughly built of twigs intermingled with fine hair-like substances as a binding, and lined with cotton and fine wool with here and there a feather. It begins to lay in September.

[I may take this opportunity of remarking that in a nearly allied species, *C. sulphurata* (Linn.), I find specimens from Natal considerably smaller than those from the Cape, but I think not otherwise different.—J. H. G.]

37. (L. 426.) MEGALOPHONUS CINEREUS (Vieill.). Lesser Rufous-capped Lark.

38. (L. 434.) MEGALOPHONUS APIATUS (Vieill.). Bateleuse Lark.

39. (L. 435.) CERTHILAUDA GARRULA, A. Smith. Garrulous Lark.

All these three Larks are to be found in the open country of the Trans-Vaal.

40. (L. 452.) *SCHIZÆRHIS CONCOLOR* (A. Smith). Dusky Plantain-eater.

Common throughout the bush country of the Trans-Vaal; the specimens sent are from the Limpopo.

41. (L. 458.) *BUCORVUS ABYSSINICUS* (Gmel.). Abyssinian Hornbill.

There are two or three kinds of land-tortoise in the district of the river Limpopo which are eaten and much esteemed by the natives, and also fully appreciated by the large Abyssinian Hornbill, which attacks the tortoise and very neatly picks every atom of flesh from the unhappy reptile, eating also the legs and head and leaving the entire shell without damage.

I could not at first imagine what it could be which thus destroyed the tortoises without injuring their shell; but the Caffres assured me that it was the Abyssinian Hornbill during the summer months, when the tortoises are out in numbers.

42. (L. 456.) *BUCEROS ERYTHORHYNCHUS* (Temm.). Red-billed Hornbill.

Numerous about the river Limpopo.

[In the specimen sent, a female, the cheeks were dark bluish grey, not white as described by Mr. Layard (B. S. Afr. p. 227). I believe that both these variations of colour occur in South-African examples of this bird, but whether they are indicative of distinct races I am unable to say.—J. H. G.]

43. *PSITTACUS MEYERI*, Rüpp. Meyer's Parrot.

These Parrots occur near the Limpopo and throughout the bush-veldt of the Trans-Vaal; they are much kept as pets by the inhabitants, and become perfectly tame.

[Some specimens of this Parrot have an irregular broad mark of pale yellow across the crown of the head, which in other examples is entirely wanting; the pair sent by Mr. Ayres from the Limpopo, a male and female, both possessed this peculiarity.—J. H. G.]

44. (L. 474?) *CHRYSOPTILUS BENNETTI*, A. Smith. Bennett's Woodpecker.

Obtained near the river Limpopo.

[This species, to which the above specific name is assigned by

Professor Sundevall (Consp. Pic. no. 186, p. 63), was included by me in my list of Natal birds (Ibis, 1860, p. 213) as *Campethera chrysura*, and subsequently (Ibis, 1862, pp. 37 & 157) as *Dendromus smithi*. I believe that the correct specific name of this Woodpecker is that which, on the authority of Professor Sundevall, I have here applied to it.—J. H. G.]

45. (L. 498.) *OXYLOPHUS SERRATUS* (Sparm.). Edolio-Cuckoo.

Appears in Potchefstroom about November, and leaves again before the winter sets in.

46. (L. 524.) *FRANCOLINUS SWAINSONI*, A. Smith. Swainson's Francolin.

47. (L. 528.) *FRANCOLINUS PILEATUS*, A. Smith. Pilcated Francolin.

Both these Francolins are found near the river Limpopo.

48. (L. 537.) *PTEROCLES GUTTURALIS*, A. Smith. Sombre Sand-Grouse.

These birds are tolerably plentiful in the neighbourhood of Potchefstroom towards the latter end of winter and the beginning of spring, but appear to leave in summer; they are generally in companies of from three to a dozen or so, and very seldom found singly: they mostly frequent bare ground not far from water; and I am informed that they go regularly to drink twice a day, however distant they may be from their supply. Their flight is exceedingly strong; they rise with a loud whirring noise, and when on the wing they somewhat resemble some of the Pigeons, especially *Columba trigonigera*. On the approach of danger they crouch and lie very close to the ground, and it is then exceedingly difficult to see them; when disturbed they do not run, but rise quite suddenly. Their notes, which are, I believe, only uttered on the wing, are short and harsh, and may be heard a considerable distance; they feed much upon the seed of a small species of tare or pea, and also upon bulbous nutty roots of a small species of grass, which they scratch up; these bulbs have a strong, agreeable

aromatic smell; and when the birds have freely fed on them they appear to be thoroughly scented.

Iris dusky-brown, bill light bluish horn-colour, feet dusky.

49. (L. 536.) *PTEROCLES BICINCTUS*, Temm. Double-banded Sand-Grouse.

This species occurs near the river Limpopo.

50. (L. 540.) *EUPODOTIS CRISTATA* (Scop.). Kori Bustard.

This splendid bird is not uncommon in the Trans-Vaal, living principally amongst the scattered mimosa bush; it is exceedingly fond of the gum which exudes from the mimosa, and which much resembles gum arabic, on which account it has received from the Dutch inhabitants the name of "Gum-Paauw."

I never saw more than three of these birds together, and they are generally found singly, though sometimes in pairs. The flesh of this species is too coarse and oily to be good eating.

Two fine eggs of this Bustard were brought me by a Caffre, from whose description I identified them. He stated that no nest whatever was formed, but the eggs laid on the bare open ground on a stony ridge.

The specimen sent I take to be a young hen, as it only weighed fifteen pounds, and I am told that the male bird frequently attains the weight of from thirty to forty pounds. The irides in this specimen were light tawny-brown; the upper mandible dusky, except the side edges, which, with the under mandible, were dingy white, which was also the colour of the thighs, tarsi, and feet. The stomach of this bird was crammed with locusts.

[Mr. Tristram, to whom the eggs mentioned by Mr. Ayres were sent, describes them to me as "the most magnificent of eggs, very nearly as large as Cranes', and more pointed than those of other Bustards, rich red all over, with richer blotches thickly over the whole surface."—J. H. G.]

51. (L. 545.) *EUPODOTIS SENEGALENSIS* (Vieill.) Senegal Bustard.

This Bustard lays two eggs, which I am told are generally placed in the open country under shelter of some high tufts of

grass. The eggs of different individuals appear to vary much in shading and blotching.

52. (L. 542.) *EUPODOTIS LUDWIGI*, Rüpp. Ludwig's Bustard.

I took the eggs of this Bustard from the top of a low stony range of hillocks. I happened to be at a farmstead about thirty miles from Potchefstroom, when a young boer told me he had found a *Paauw's* nest; so I immediately started with him to the spot, rather late in the afternoon; after a smart walk of about five miles we came to the stony ridge; and there lay the two eggs, quite warm, the old bird having evidently just left the nest and crept away amongst the stones on our approach; they were laid on the bare ground, without any appearance of a nest. We sat down to rest for a quarter of an hour or so, when my Hottentot, whom I had taken with me, suddenly, but in a whisper, said that he saw the bird, and pointed to a spot within a few yards of us; but I could see nothing; so I handed him my gun, and he immediately killed the bird as she lay crouched amongst the stones within ten yards of us, and would no doubt there have lain until we left the place.

53. (L. 551.) *CURSORIUS RUFUS*, Gould. Burchell's Courser.

The bird sent, which proved to be a male, allowed itself to be caught on its nest by a lad from Potchefstroom; the eggs, two in number, were placed on the bare ground, in a gravelly spot, and were much incubated.

[On reexamining the examples formerly recorded by me from Natal (Ibis, 1860, p. 217) under the above name, I find that they do not belong to this species, but to its near ally *C. senegalensis*, Licht. I have not yet seen *C. rufus* from Natal or *C. senegalensis* from the Trans-Vaal.—J. H. G.]

54. (L. 558.) *HOPLOPTERUS ARMATUS*, Jard. & Selby. Black-and-white Spurwing Plover.

The eggs of this Plover are generally from two to four in number; the nest is simply a slight excavation on the bare open ground, with a thin layer of grass-roots, and is generally placed from fifty to a hundred yards from the edge of some swamp.

The birds breed in August and September, and are at this time exceedingly bold, darting at the heads of any cattle that

happen to come too near their nests, and actually driving them away by their incessant noise and annoyance.

55. (L. 560.) *VANELLUS CORONATUS*, Temm. Crowned Plover.

The nest of this species is precisely similar to that of the Black-and-white Spurwing, and is placed in similar situations; the eggs are from two to four in number.

56. (L. 566.) *ÆGIALITIS KITTLITZI* (Reich.). Kittlitz's Plover.

These birds frequent the muddy flats, and run with considerable swiftness, stopping suddenly and bobbing the head, as many of the Plovers do. They remain through the summer and breed in the Trans-Vaal.

Eye large, iris very dark; bill black; tarsi and feet ashy black.

57. (L. 574.) *ANTHROPOIDES STANLEYANUS*, Vig. Stanley Crane.

Common here, and breeds plentifully, choosing situations very similar to those selected by *Eupodotis caffra*.

58. (L. 589.) *ARDETTA FUSILLA* (Vicill.). Rufous-necked Little Bittern.

[The remarks of Mr. Ayres lately given by me (Ibis, 1868, p. 469) under the head of *Ardetta minuta*, were intended by him to apply to the present species; and I regret having erroneously assigned them.—J. H. G.]

59. (L. 591.) *BOTAURUS CAPENSIS* (Schl.). Cape Bittern.

I first met with these birds amongst the rushes in the swamps surrounding Potchefstroom, where they lie concealed during the day, emerging from their covert towards dark to seek their favourite feeding-grounds; at this time they frequently fly over one's head on their passage. Their flight is slow and laboured; and a loud harsh "quirk" is occasionally uttered as they pass. When wounded they are extremely pugnacious, defending themselves with great pertinacity: they throw themselves on their backs, and, with claws and bill (which are both exceedingly sharp and strong) advanced, make rather a formidable appearance, more especially as the feathers round the neck are ruffled up at

this time ; and few dogs care to interfere with them. On my first arrival in Potchefstroom I was informed by the Dutch that a very large snake inhabited the surrounding swamps, that many persons had seen it, all of whom had been alarmed, and that at night during the summer months it made a loud bellowing sort of noise, which I should surely hear. I at once determined to overcome the monster and immortalize myself. The noise I certainly heard at night and also in the daytime, and that when I was often a mile or two distant from the swamps. I gave my friends the bullfrogs credit for it ; but the Dutch laughed me to scorn for such an idea. I tried, gun in hand, several times to approach the spot ; but sometimes the place amongst the reeds was inaccessible, at others the reeds so thick that I made so much noise in pushing my way through them as to frighten my enemy, who immediately left off making the unearthly noise in which he appeared to delight. One day, however, I heard it in a comparatively open swamp, and on walking in a direct line to the spot the noise ceased and a Bittern flew up and alighted again within three hundred yards. As I could see nothing further, I waited and listened for the noise to recommence, considering that the snake's head might perhaps be under water, as I was standing up to my middle in it amongst the rushes. After waiting patiently for nearly half an hour, and watching carefully, I heard the noise begin again from the direction in which the Bittern had flown. Proceeding thither, I again flushed the bird ; the noise ceased. A third time the same thing happened ; so without doubt the Bittern makes this extraordinary noise, which may be regarded as a love-note, and that apparently by drawing in the air and forcing it out again. The skin of the neck being exceedingly loose, the bird probably has the power of inflating it. Tadpoles and small frogs form its principal diet.

Iris brownish-yellow ; bill greenish, brown on the ridge ; tarsi and feet greenish-yellow.

[The Cape Bittern only differs from the European Bittern (*Botaurus stellaris*) in its smaller size ; it is the "*Ardea stellaris capensis*" of Professor Schlegel (Muséum des Pays-Bas, *Ardeæ*, p. 48) ; and as the comparative measurements of the two races are given by him, it is not needful here to repeat them.—J. H. G.]

60. (L. 579.) *ARDEA PURPUREA*, Linn. Purple Heron.

This Heron chooses for its breeding-place a secluded reedy swamp. The nest is placed some few feet above the water (which is frequently out of one's depth), on reeds bent down by the bird so as to meet from all directions and thus form a sufficient support for the nest, which is a very rough structure composed of dead sticks and pieces of reeds; it is two or three feet in diameter, with a very slight concavity. These Herons lay three or four eggs; and frequently five or six pairs breed in company, placing their nests within a few yards of each other*.

61. (L. 601.) *ANASTOMUS LAMELLIGERUS*, Temm. African Anastomus.

This is a very scarce bird here. I have procured one, a female, which was shot within a mile of Potchefstroom.

62. (L. 624.) *GALLINAGO ÆQUATORIALIS*, Rüpp. Black-quilled Snipe.

Breeds plentifully in the swamps around Potchefstroom, principally in August. The bird sits exceedingly close, and the nests are not easily found; they are placed or rather formed in a stool or clump of grass, in the centre of which the bird treads down the finer blades, and thus forms a sufficient cavity, well surrounded and concealed by the outer blades, which curve over and afford both shade from the sun and shelter from the cold winds.

63. (L. 652.) *MARECA CAPENSIS* (Gmel.). South-African Widgeon.

The specimen sent is the only one I have yet met with; three flew past me one evening in August, out of which I bagged this one.

Female:—Iris cinnamon-brown; bill black at the base, light pink in the middle, gradually assuming a bluish tint towards the tip; tarsi and feet yellowish-dusky; webs nearly black.

64. (L. 661.) *ERISMATURA MACCOA* (A. Smith). Maccoa Duck.

The specimen sent I shot in December whilst standing up to

* (*f. supra*, p. 238.

my middle in water and mud in a very extensive lagoon on the borders of the Vaal River. It kept constantly diving, and did not attempt to fly; but so quick were its motions, remaining not a second above water, that I had the greatest difficulty in shooting it. The belly was extraordinarily large, and the stomach contained water-snails.

The irides were brown, the upper mandible black, the lower pale, tarsi and feet dusky ash-colour.

65. (L. 691.) *PODICEPS CRISTATUS* (Linn.). Great Crested Grebe.

This bird was brought to me alive one day in April by a Caffre; he stated that he had chased it amongst the reeds in shallow water and so caught it. It is the first specimen I have met with in the Trans-Vaal.

Male, in breeding-dress:—Iris crimson; bill dark pink, with the gape and ridge dusky; tarsi and feet dusky, the latter much marked with pale greenish yellow.

[I lately noticed (Ibis, 1868, p. 263) a small and short-billed specimen of *P. nigricollis*, which I had received from Trans-Vaal. Since then I have examined two specimens from the Cape Colony of very similar dimensions; and it is interesting to find the like peculiarity in the specimen of *P. cristatus* mentioned in the above note by Mr. Ayres. It is certainly the smallest example of this species which has come under my notice; and I append its measurements, together with those of a British specimen for comparison, and also of a specimen of intermediate size obtained in Walvisch Bay, Damara Land, by the late Mr. Andersson.

	Whole length.	Wing from carpal joint.	Tarsus.	Bill from forehead.
	in.	in.	in.	in.
♂. Trans-Vaal	17	6.50	2.25	1.75
♀. Walvisch Bay . .	19	7	2.25	1.75
♂. Norfolk	22	7.25	2.75	2

—J. H. G.]

66. (L. 693.) *PODICEPS MINOR* (Gmel.). Little Grebe.

Male, in breeding-dress:—Iris and eyelid scarlet, tarsi and feet dusky yellowish-green, bill black.